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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-25641; Directorate Identifier 2006-NM-114-AD; Amendment 39-14730; AD 2006-17-09]

RIN 2120-AA64

Airworthiness Directives; Fokker Model F27 Mark 050 Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Fokker Model F27 Mark 050 airplanes. This AD requires doing an initial inspection of the leading edge sections of the elevators to detect loose leading edges and to ensure that there is no gap between the sections and the front spar, and corrective actions if necessary. This AD also requires determining the type of leading edge installed on the elevators. For certain airplanes, this AD requires repetitive inspections until the modification of the leading edge sections of the elevators and the application of sealant, which would end the repetitive inspections. This AD results from reports that the leading edges of the elevators were found loose, although the fasteners were still in place; in one case a stud was broken. In addition, the fastener attachment holes were elongated and worn out, and fretting damage was found on the elevator front spar and balance weights. Investigation revealed that vibration, induced by the propeller slipstream, was the cause of these discrepancies; the stud failure was due to improper installation of the fasteners. We are issuing this AD to prevent jamming, restricting, or binding of the elevators due to loose or missing fasteners, which could make the movement of the elevator difficult and decrease aerodynamic control of the airplane.

DATES: This AD becomes effective September 6, 2006.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of September 6, 2006.

We must receive comments on this AD by October 23, 2006.

ADDRESSES: Use one of the following addresses to submit comments on this AD.

DOT Docket Web site: Go to http://dms.dot.gov and follow the instructions for sending your comments electronically.

Government-wide rulemaking Web site: Go to http://www.regulations.gov and follow the instructions for sending your comments electronically.

Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590.

Fax: (202) 493-2251.

Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact Fokker Services B.V., P.O. Box 231, 2150 AE Nieuw-Vennep, the Netherlands, for service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

The Civil Aviation Authority–The Netherlands (CAA-NL), which is the airworthiness authority for the Netherlands, notified us that an unsafe condition may exist on Fokker Model F27 Mark 050 airplanes. The CAA-NL advises that the leading edges of the elevators were found loose, although the fasteners were still in place; in one case a stud was broken. In addition, the fastener attachment holes were elongated and worn out, and fretting damage was found on the elevator front spar and balance weights. Investigation revealed that vibration, induced by the propeller slipstream, was the cause of these discrepancies; the stud failure was due to improper installation of the fasteners. Due to initial play in the attachment holes and at the lip of the free end of each leading edge section, some movement of the leading edge sections over the front spar can occur, causing the fretting of the front spar and elongation of the fastener attachment holes. These conditions, if not corrected, could result in jamming, restricting, or binding of the elevators due to loose or missing fasteners, which could make the movement of the elevator difficult and decrease aerodynamic control of the airplane.

Relevant Service Information

Fokker Services B.V. has issued Service Bulletins SBF50-55-012 and SBF50-55-013, both dated October 11, 2004.

Service Bulletin SBF50-55-012 describes procedures for inspecting the leading edge sections of the elevators to detect loose leading edges and to ensure that there is no gap between the sections and the front spar, and corrective actions if necessary. The corrective actions include, among other things, installing an additional washer under the nut if the nut reaches the end of the screw thread on the stud, or installing the stud deeper in the elevator front spar. The service bulletin also describes procedures for determining the type of leading edge installed on the elevators.

Service Bulletin SBF50-55-013 describes procedures for modifying the leading edge sections of the elevators and applying sealant, which would eliminate the need for the repetitive inspections. The modification includes, among other things, inspecting the gap between the nose of the leading edge and the horizontal stabilizer to assure it meets the minimum measurement. If the gap is too small, the service bulletin describes corrective actions to enlarge the gap.

Accomplishing the actions specified in Service Bulletins SBF50-55-012 and SBF50-55-013 is intended to adequately address the unsafe condition. The CAA-NL mandated the service information and issued Dutch airworthiness directive NL-2005-001, dated March 23, 2005, to ensure the continued airworthiness of these airplanes in the Netherlands.

Service Bulletin SBF50-55-013 refers to Fokker Component Service Bulletins F3203-010-55-01 and F3203-011-55-02, both dated October 11, 2004, as additional sources of service information for modifying the leading edge sections of the elevators and applying sealant.

FAA's Determination and Requirements of this AD

This airplane model is manufactured in the Netherlands and is type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. As described in this bilateral airworthiness agreement, the CAA-NL has kept the FAA informed of the situation described above. We have examined the CAA-NL's findings, evaluated all pertinent information, and determined that we need to issue an AD for products of this type design that are certificated for operation in the United States.

Therefore, we are issuing this AD to prevent jamming, restricting, or binding of the elevator control surfaces due to loose or missing fasteners, which could make the movement of the elevator difficult and decrease aerodynamic control of the airplane. This AD requires accomplishing the actions specified in the service information described previously.

Clarification of Inspection Type

In this AD, the "inspection" required by the Dutch airworthiness directive is referred to as a "detailed inspection." We have included the definition for a detailed inspection in a note in the AD.

Costs of Compliance

None of the airplanes affected by this action are on the U.S. Register. All airplanes affected by this AD are currently operated by non-U.S. operators under foreign registry; therefore, they are not directly affected by this AD action. However, we consider this AD necessary to ensure that the unsafe condition is addressed if any affected airplane is imported and placed on the U.S. Register in the future.

If an affected airplane is imported and placed on the U.S. Register in the future, the following costs would apply:

The required inspection would take about 1 work hour per airplane, at an average labor rate of $80 per work hour. Based on these figures, the estimated cost of the inspection would be $80 per airplane, per inspection cycle.

The required modification and application of sealant would take about 7 work hours per airplane, at an average labor rate of $80 per work hour. The manufacturer states that it will supply required parts at no cost. Based on these figures, the estimated cost of the modification and sealant would be $560 per airplane.

FAA's Determination of the Effective Date

No airplane affected by this AD is currently on the U.S. Register. Therefore, providing notice and opportunity for public comment is unnecessary before this AD is issued, and this AD may be made effective in less than 30 days after it is published in the Federal Register.

Comments Invited

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any relevant written data, views, or arguments regarding this AD. Send your comments to an address listed in the ADDRESSES section. Include "Docket No. FAA-2006-25641; Directorate Identifier 2006-NM-114-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD that might suggest a need to modify it.

We will post all comments we receive, without change, to http://dms.dot.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of that Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78), or you may visit http://dms.dot.gov.

Examining the Docket

You may examine the AD docket on the Internet at http://dms.dot.gov, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the DOT street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after the Docket Management System receives them.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket. See the ADDRESSES section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):

2006-17-09 Fokker Services B.V.: Amendment 39-14730. Docket No. FAA-2006-25641; Directorate Identifier 2006-NM-114-AD.

Effective Date

(a) This AD becomes effective September 6, 2006.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all Fokker Model F27 Mark 050 airplanes, certificated in any category.

Unsafe Condition

(d) This AD results from reports that the leading edges of the elevators were found loose, although the fasteners were still in place; in one case a stud was broken. In addition, the fastener attachment holes were elongated and worn out, and fretting damage was found on the elevator front spar and balance weights. Investigation revealed that vibration, induced by the propeller slipstream, was the cause of these discrepancies; the stud failure was due to improper installation of the fasteners. We are issuing this AD to prevent jamming, restricting, or binding of the elevators due to loose or missing fasteners, which could make the movement of the elevator difficult and decrease aerodynamic control of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Inspection/Corrective Actions

(f) For all airplanes: Within 6 months after the effective date of this AD, do the actions required by paragraphs (f)(1) and (f)(2) of this AD, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF50-55-012, dated October 11, 2004.

(1) Do a detailed inspection of the leading edge sections of the elevators to detect loose leading edges and to ensure that there is no gap between the sections and the front spar, including all applicable corrective actions. All applicable corrective actions must be done before further flight.

(2) Determine the type of leading edges installed on the elevators: If the leading edges are single-type, no further action is required by this AD. If the leading edges are divided-type, repeat the inspection required by paragraph (f)(1) of this AD thereafter at intervals not to exceed 6 months, until the actions specified in paragraph (g) of this AD have been done.

Note 1: For the purposes of this AD, a detailed inspection is: "An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required."

Modification

(g) For airplanes equipped with the "divided type" elevators: Within 24 months after the effective date of this AD, modify the leading edge sections of the elevators and apply sealant (including doing the inspection of the gap and all applicable corrective actions), in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF50-55-013, dated October 11, 2004. All applicable corrective actions must be done before further flight. Accomplishing the actions in this paragraph ends the repetitive inspections required by paragraph (f)(2) of this AD.

Note 2: Fokker Service Bulletin SBF50-55-013 refers to Fokker Component Service Bulletins F3203-010-55-01 and F3203-011-55-02, both dated October 11, 2004, as additional sources of service information for modifying the leading edge sections of the elevators and applying sealant.

Alternative Methods of Compliance (AMOCs)

(h)(1) The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

Related Information

(i) Dutch airworthiness directive NL-2005-001, dated March 23, 2005, also addresses the subject of this AD.

Material Incorporated by Reference

(j) You must use Fokker Service Bulletin SBF50-55-012, dated October 11, 2004; and Fokker Service Bulletin SBF50-55-013, dated October 11, 2004; as applicable; to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of these documents in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Fokker Services B.V., P.O. Box 231, 2150 AE Nieuw-Vennep, the Netherlands, for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Room PL-401, Nassif Building, Washington, DC; on the Internet at http://dms.dot.gov; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on August 11, 2006.
Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
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